

Notice of Allowability

Application No.

09/988,462

Examiner

Elizabeth F. McElwain

Applicant(s)

KOZIEL ET AL.

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed November 5, 2003.
2. ☒ The allowed claim(s) is/are 95-104, 131 and 132 (renumbered 1-12).
3. ☒ The drawings filed on 20 November 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

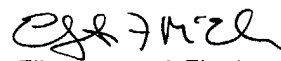
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1 ☐ Notice of References Cited (PTO-892)
- 2 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3 ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No. 9/5/02, 2/19/02, 2/11/03, 7/29/03, 9/22/03
- 4 ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

- 5 ☐ Notice of Informal Patent Application (PTO-152)
- 6 ☒ Interview Summary (PTO-413), Paper No. 11/5/03
- 7 ☒ Examiner's Amendment/Comment
- 8 ☒ Examiner's Statement of Reasons for Allowance
- 9 ☐ Other


Elizabeth F. McElwain
Primary Examiner
Art Unit: 1638

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Scheibeler on November 7, 2003.

The application has been amended as follows:

99. (currently amended) A method of controlling [insect pests] European corn borer infestation in maize, comprising [contacting the insect pests with the transgenic plant] growing maize plants according to claim 98 that express the *Bacillus thuringiensis* insecticidal protein in an amount that controls the population of European corn borer below the economic threshold for maize.

100. (currently amended) The method of claim 99, wherein the [insect pests are lepidopteran insect pests] economic threshold is 0.5 eggmass/plant.

101. (currently amended) The method of claim [100] 99, wherein the [insect pests are European corn borers] economic threshold is 10 larvae/plant.

2. The following is an examiner's statement of reasons for allowance: The claims are free of the prior art given that that the prior art does not teach or suggest a transgenic maize seed comprising a synthetic DNA sequence that encodes a *Bacillus thuringiensis* insecticidal protein, wherein the synthetic DNA sequence comprises the codons recited in the claims in sufficient number that the synthetic DNA has at least about 60% G+C content. The prior art also does not teach or suggest a maize plant grown from said seed or a method of controlling European corn borer comprising growing said plants.

Claims 99-101 have been amended to recite that the population of European corn borer is kept below the economic threshold, wherein the economic threshold may be 0.5 eggmass/plant or 10 larvae/plant. Therefore, the claims are drawn to a method of controlling a population of European corn borer by growing maize plants that express *Bacillus thuringiensis* insecticidal protein at a level that is sufficient to keep the population of surviving insects low enough that there is not a significant loss in yield. Support for this amendment can be found in the specification at page 16, the second full paragraph, at least.

Applicants have filed Terminal Disclaimers for U.S. Patent No. 6,075,185 and U.S. Patent No. 6,320,100 to obviate the need for obviousness double-patenting rejections.

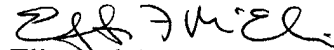
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 1638

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth F. McElwain whose telephone number is 703-308-1794. The examiner can normally be reached on increased flex time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on 703-306-3218. The fax phone number for the organization where this application or proceeding is assigned is 703-308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.


Elizabeth F. McElwain
Primary Examiner
Art Unit 1638

EFM